

OIPE

#2

## RAW SEQUENCE LISTING

DATE: 01/03/2002

PATENT APPLICATION: US/10/016,647

TIME: 13:41:11

Input Set : A:\LEX-0284-USA SEQLIST.txt

Output Set: N:\CRF3\01032002\J016647.raw

ENTERED

4 <110> APPLICANT: Friddle, Carl Johan  
 5 Hilbun, Erin  
 6 Turner, C. Alexander Jr.  
 8 <120> TITLE OF INVENTION: Novel Human Ion Channel Protein and Polynucleotides Encoding  
 the Same

10 &lt;130&gt; FILE REFERENCE: LEX-0284-USA

12 &lt;140&gt; CURRENT APPLICATION NUMBER: US/10/016,647

12 &lt;141&gt; CURRENT FILING DATE: 2001-12-10

12 &lt;150&gt; PRIOR APPLICATION NUMBER: US 60/257,932

13 &lt;151&gt; PRIOR FILING DATE: 2000-12-20

15 &lt;160&gt; NUMBER OF SEQ ID NOS: 3

17 &lt;170&gt; SOFTWARE: FastSEQ for Windows Version 4.0

19 &lt;210&gt; SEQ ID NO: 1

20 &lt;211&gt; LENGTH: 1278

21 &lt;212&gt; TYPE: DNA

22 &lt;213&gt; ORGANISM: homo sapiens

24 &lt;400&gt; SEQUENCE: 1

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25 atgaccttcg ggcgcagcgg ggcggcctcg gtggtgctga acgtgggagg cgcccgggtat      60
26 tcgctgtccc gggagctgct gaaggacttc ccgctgcgcc gcgtgagccg gctgcacggc      120
27 tgccgctccg agcgcgacgt gctcgaggtg tgcgacgact acgaccgcga gcgcaacgag      180
28 tactttcttc accggcactc ggaggccttc ggcttcatcc tgctctacgt gcgcggccac      240
29 ggcaagctgc gcttcgcgcc gcggatgtgc gagctctcct tctacaacga gatgatctac      300
30 tggggcctgg agggcgcgca cctcgagtag tgctgccagc gccgcctcga cgaccgcatg      360
31 tccgacacct acaccttcta ctcgcccgac gagccggggc tgctggggcg cgacgaggcg      420
32 cgccccggcg gggccgaggg ggctccctcc aggcgctggc tggagcgcat gcggcgagacc      480
33 ttcgaggagc ccacgtcgtc gctggccgcg cagatcctgg ctacgctgtc ggtggtgttc      540
34 gtgatcgtgt ccattggtgt gctgtgcgcc agcagtttgc ccgactggcg caacgcagcc      600
35 gccgacaacc gcagcctgga tgaccggagc aggataattg aagctatctg cataggttgg      660
36 ttactgcccg agtgcacgtg gaggttcatt gtctccaaaa acaagtgtga gtttgtcaag      720
37 agacccttga acatcattga ttactggcga atcagccgct attacatctc tgtgttgatg      780
38 acagtgttta caggcgagaa ctctcaactc cagagggtcg gagtcacctt gagggacttt      840
39 agaagatgga ggattttttg ggtgattaa gcttgcctgc acttcatttg tcttcagaca      900
40 ctcggtttga ctctcaaacg ttgctaccga gagatgggta tgttacttgt cttcatttgt      960
41 gttgccaatg caatcttttag tgcactttct cagcttcttg aacatgggct ggacctggaa      1020
42 acatccaaca aggactttac cagcattcct gctgcctgct ggtgggtgat tatctctatg      1080
43 actacagttg gctatggaga tatgtatcct atcacagtgc ctggaagaat tcttgaggga      1140
44 gtttgtgttg tcagtggaat tgttctattg gcattaccta tcacttttat ctaccatagc      1200
45 tttgtgcagt gttatcatga gctcaagttt agatctgcta ggtatagtag gagcctctcc      1260
46 actgaattcc tgaattaa                                     1278

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48 &lt;210&gt; SEQ ID NO: 2

49 &lt;211&gt; LENGTH: 425

50 &lt;212&gt; TYPE: PRT

51 &lt;213&gt; ORGANISM: homo sapiens

53 &lt;400&gt; SEQUENCE: 2

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54 Met Thr Phe Gly Arg Ser Gly Ala Ala Ser Val Val Leu Asn Val Gly
55 1           5           10           15
56 Gly Ala Arg Tyr Ser Leu Ser Arg Glu Leu Leu Lys Asp Phe Pro Leu
57           20           25           30

```

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58 Arg Arg Val Ser Arg Leu His Gly Cys Arg Ser Glu Arg Asp Val Leu
59          35          40          45
60 Glu Val Cys Asp Asp Tyr Asp Arg Glu Arg Asn Glu Tyr Phe Phe Asp
61          50          55          60
62 Arg His Ser Glu Ala Phe Gly Phe Ile Leu Leu Tyr Val Arg Gly His
63 65          70          75          80
64 Gly Lys Leu Arg Phe Ala Pro Arg Met Cys Glu Leu Ser Phe Tyr Asn
65          85          90          95
66 Glu Met Ile Tyr Trp Gly Leu Glu Gly Ala His Leu Glu Tyr Cys Cys
67          100          105          110
68 Gln Arg Arg Leu Asp Asp Arg Met Ser Asp Thr Tyr Thr Phe Tyr Ser
69          115          120          125
70 Ala Asp Glu Pro Gly Val Leu Gly Arg Asp Glu Ala Arg Pro Gly Gly
71          130          135          140
72 Ala Glu Ala Ala Pro Ser Arg Arg Trp Leu Glu Arg Met Arg Arg Thr
73 145          150          155          160
74 Phe Glu Glu Pro Thr Ser Ser Leu Ala Ala Gln Ile Leu Ala Ser Val
75          165          170          175
76 Ser Val Val Phe Val Ile Val Ser Met Val Val Leu Cys Ala Ser Thr
77          180          185          190
78 Leu Pro Asp Trp Arg Asn Ala Ala Asp Asn Arg Ser Leu Asp Asp
79          195          200          205
80 Arg Ser Arg Ile Ile Glu Ala Ile Cys Ile Gly Trp Phe Thr Ala Glu
81          210          215          220
82 Cys Ile Val Arg Phe Ile Val Ser Lys Asn Lys Cys Glu Phe Val Lys
83 225          230          235          240
84 Arg Pro Leu Asn Ile Ile Asp Leu Leu Ala Ile Thr Pro Tyr Tyr Ile
85          245          250          255
86 Ser Val Leu Met Thr Val Phe Thr Gly Glu Asn Ser Gln Leu Gln Arg
87          260          265          270
88 Ala Gly Val Thr Leu Arg Val Leu Arg Met Met Arg Ile Phe Trp Val
89          275          280          285
90 Ile Lys Leu Ala Arg His Phe Ile Gly Leu Gln Thr Leu Gly Leu Thr
91          290          295          300
92 Leu Lys Arg Cys Tyr Arg Glu Met Val Met Leu Leu Val Phe Ile Cys
93 305          310          315          320
94 Val Ala Met Ala Ile Phe Ser Ala Leu Ser Gln Leu Leu Glu His Gly
95          325          330          335
96 Leu Asp Leu Glu Thr Ser Asn Lys Asp Phe Thr Ser Ile Pro Ala Ala
97          340          345          350
98 Cys Trp Trp Val Ile Ile Ser Met Thr Thr Val Gly Tyr Gly Asp Met
99          355          360          365
100 Tyr Pro Ile Thr Val Pro Gly Arg Ile Leu Gly Gly Val Cys Val Val
101          370          375          380
102 Ser Gly Ile Val Leu Leu Ala Leu Pro Ile Thr Phe Ile Tyr His Ser
103 385          390          395          400
104 Phe Val Gln Cys Tyr His Glu Leu Lys Phe Arg Ser Ala Arg Tyr Ser
105          405          410          415
106 Arg Ser Leu Ser Thr Glu Phe Leu Asn

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107          420          425
109 <210> SEQ ID NO: 3
110 <211> LENGTH: 1844
111 <212> TYPE: DNA
112 <213> ORGANISM: homo sapiens
114 <400> SEQUENCE: 3
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117 ggcaccgcgg cctcggtgtg cgcagccctc gggcgcgagg gtcggcgggc cggacacagc      180
118 cgcgttccca gccggtgggg ctcagcgctg gcgcggcgga ggactccccg gccaccgcga      240
119 ggtaccgcgg ggcggagggc gcgctactag cagcgccgga gatactcgag cccaggggacc      300
120 cccggggccag cggagggcag gagcgagacc ccgagggagc gcggggcccc acggcgcgct      360
121 cccccgtcag ccacgggcag gcaggccccg cgtggcggct tggggtgggg ggctgcagcg      420
122 gggccctcgg gccgaaagtc ccccgggcgg ccagccatga ccttcggggc cagcggggcg      480
123 gcctcggttg tgctgaacct gggcgggcgc cggatttcgc tgtcccgga gctgctgaag      540
124 gaattccgcg tgcgccgcgt gagccggctg cacggctgcc gctccgagcg cgacgtgctc      600
125 gaggtgtgcg acgactacga ccgcgagcgc aacgagtact tcttcgaccg gcactcggag      660
126 gccttcggct tcactctgct ctacgtgcgc ggccacggca agctgcgctt cgcgcgcggg      720
127 atgtgcgagc tctccttcta caacgagatg atctactggg gcctggaggg cgcgcacctc      780
128 gactactgct gccagcgccg cctcgacgac cgcattgccg acacctacac cttctactcg      840
129 gccgacgagc cgggcgtgct gggccgcgac gaggcgcgcc ccggcggggc cgaggcggct      900
130 cctccaggc gctggctgga gcgcattgcg cggaccttcg aggagccac gtcgtcgtg      960
131 gccgcgcaga tcctggctag cgtgtcggtg gtgttcgtga tcgtgtccat ggtggtgctg      1020
132 tgcccagca cgttgccga ctggcgcaac gcagccgcgc acaaccgcag cctggatgac      1080
133 cggagcagga taattgaagc tatctgcata ggttggttca ctgccgagtg catcgtgagg      1140
134 ttcatgtctt ccaaaaacaa gtgtgagttt gtcaagagac ccctgaacat cattgattta      1200
135 ctggcaatca cgcggtatta catctctgtg ttgatgacag tgtttacagg cgagaactct      1260
136 caactccaga gggctggagt caccttgagg gtacttagaa tgatgaggat tttttgggtg      1320
137 attaatcttg cccgtcactt cattggtctt cagacactcg gtttgactct caaacgttgc      1380
138 taccgagaga tggttatggt acttgtcttc atttgtgttg ccatggcaat ctttagtgca      1440
139 ctttctcagc ttcttgaaca tgggctggac ctggaaacat ccaacaagga ctttaccagc      1500
140 attcctgctg cctgctgggt ggtgattatc tctatgacta cagttggcta tggagatatg      1560
141 taccctatca cagtgccttg aagaattctt ggaggagttt gtgttgtcag tgggaattgtt      1620
142 ctattggcat tacctatcac ttttatctac catagctttg tgcagtgtta tcatgagctc      1680
143 aagtttagat ctgctaggta tagtaggagc ctctccactg aattcctgaa ttaatgcatt      1740
144 gcaaatcaat tcttgcatac acttcataga aagactttga tgctgcttca tatttatgtg      1800
145 tttcttgctg ggtgagcact gcagtggcat tgtcatcatc ttgg      1844

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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/016,647

DATE: 01/03/2002

TIME: 13:41:12

Input Set : A:\LEX-0284-USA SEQLIST.txt

Output Set: N:\CRF3\01032002\J016647.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date